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Our file: 4703 003 013

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Via email at licensing@nunavutwaterboard.org

Dear Ms. Beaulieu:

**RE: NWB 2AM-DOH – Miramar Hope Bay Ltd. – Doris North Gold Project Water License
Application – Completeness Review**

Environment Canada (EC) has reviewed the water license application documents submitted by Miramar Hope Bay Ltd. (MHBL) for the Doris North Gold Project on November 7, 2006 and is pleased to provide the following comments regarding the completeness of the water license application. These comments are designed to assist the Nunavut Water Board (NWB) in their determination of whether the application is complete or whether additional information and studies will be required to evaluate all the quantitative and qualitative effects of the undertaking, as per Section 48 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*.

MHBL is proposing to construct, operate, and eventually decommission a small underground gold mine in the Kitikmeot region of Nunavut, 110 km southeast of Cambridge Bay, NU. The project is located within the Hope Bay Greenstone belt, 5 km south of Roberts Bay. The proposed gold mine would have an average throughput of 690 tonnes per day and a two year approximate duration.

The Nunavut Impact Review Board (NIRB) held final public hearings for this project in Cambridge Bay from January 30-February 3, 2006. The NIRB issued a final hearing report in March 2006 which recommended to the Minister of Indian and Northern Affairs that the project be approved subject to thirty-five (35) terms and conditions. This decision was accepted by the Minister on July 28, 2006. The NIRB project certificate was issued on September 15, 2006.

These comments are provided pursuant to EC's mandate as defined by the *Department of the Environment Act*. The operation of the Doris North Gold Project will be subject to the following statutes administered by Environment Canada: Section 36(3) of the *Fisheries Act* and the Metal Mining Effluent Regulations, the *Canadian Environmental Protection Act (CEPA)* and Regulations, the *Migratory Birds Convention Act* and the Migratory Bird Regulations, and the *Species at Risk Act*.

Environment Canada would like to identify that this submission does not represent a full technical review of the water license application. Rather, as requested by the NWB, it is an initial assessment of whether the required information has been provided in the application documents. Information requests and technical comments will be provided when a complete technical review of the water license application is requested by the NWB.

Environment Canada has identified the following issues which should be addressed in more detail in the water license application:

- Information pertaining to the winter ice road that will be constructed across Roberts Bay in early 2008. After speaking with MHBL, EC is of the understanding that the movement of goods across Roberts Bay will be completed by cat train. Additional information is required including how emergency response and spill contingency planning will be addressed during the operation of the cat train, details on the closure of the cat train route including any requirements for the removal of contaminated snow/ice, and other relevant information should be submitted for review.
- The Quality Assurance/Quality Control Plan submitted with the water license does not address the on-site laboratory that is to be installed on site. The QA/QC Plan states that the "Plan will be updated to reflect the on-site laboratory sample handling and analytical procedures specific to the Doris North Project prior to the start of mining operations in early 2008." Given the importance of this laboratory to the proposed water discharge scenario and prompt verification of water quality monitoring data, EC recommends that this information be submitted for review as soon as possible.
- Term and Condition #14 of the NIRB Project Certificate directs MHBL to collect additional hydroclimatic data and incorporate it into a revised water balance to be submitted to the NWB as a component of the water license. In document S5, it is stated that
...SRK Consulting has decided to run additional water balance sensitivity analyses, beyond the cases previously examined. The following cases will be run to demonstrate the robustness of the water balance:
 - Tail Lake mean annual water yield of 180 mm and mean annual precipitation of 300 mm;
 - Tail Lake mean annual water yield of 131 mm and mean annual precipitation of 207 mm, based on a runoff coefficient of 0.60, as discussed in Section 2.2.3

The water balance is addressed in supporting document S1 and Appendix F. However, these documents do not seem to include the sensitivity analyses referred to by SRK. If this information is included in the supporting documents, the location should be referenced; if the information is not included, it should be submitted as soon as possible for review.
- Given the relatively short life of the Doris North project, the NIRB Final Hearing report directs the proponent to submit a complete closure and reclamation plan when the application for a water license is made to the NWB and states that any delay in filing a complete closure and reclamation plan is not acceptable to the NIRB. This desire is reiterated in Term and Condition #31 of the Project Certificate. However, when discussing post-closure monitoring requirements, the Plan currently states that "monitoring and maintenance programs discussed in this section are inherently generic at this stage of planning and will be developed in more detail in consultation with communities and regulators, and as project permitting advances." Post-closure monitoring is a key component of any closure and reclamation plan, and as such, details regarding the proposed monitoring or how the existing SNP station will be utilized should be submitted for review.
- Additional information is required to explain the shift in the water license application from using of the site specific water quality guideline for copper as a check value to provide an additional level of assurance that any exceedances of the CCME-FWAL guideline downstream of the Doris Creek waterfall will not impact the receiving environment (as stated in the FEIS) to the use of the site specific water quality guidelines for copper in place of the CCME interim guideline for copper.

Once EC has the opportunity to review the information in more detail, it is likely that additional information will be required in order to allow EC to adequately evaluate all of the potential effects of the project on freshwater. As such, EC requests that the NWB provide the opportunity to submit information requests to MHBL in order to acquire any additional information that is necessary to complete a thorough technical review of the potential impacts of the project. Please do not hesitate to contact Colette Spagnuolo (Tel: 867-975-4639; Email: colette.spagnuolo@ec.gc.ca) with any questions or comments with regards to the foregoing. Environment Canada looks forward to working with both MHBL and the NWB in ensuring the sustainable use of water resources within Nunavut.

Yours truly,

Original signed by

Stephen Harbicht
Head, EA North

cc: (Colette Spagnuolo, Environmental Assessment/Contaminated Sites Specialist, Environment Canada, Iqaluit)